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DIMENSIONALITY OF NATIONS PROJECT
QUARTERLY TECHNICAL REPORT NO. 12
JANUARY 1, 1971 TO MARCH 31, 1971

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In the past quarter, field theory was extended to provide greater relevance and applicability to traditional international relations theories. Special emphasis was placed on the interrelationship between field theory and status theories. Methodologies and guiding principles for the conduct of policy analysis studies were formulated, and a call for more action-oriented policy analyses was made. The analysis of the United Nations voting patterns was extended by attempting to predict voting based upon national attributes of member nations. Data analyses and methodological investigations continued throughout the quarter.

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INTRODUCTION

This twelfth quarterly report is divided into seven sections. The first describes the analyses initiated and completed during the quarter; the results of special significance are highlighted. Methodological problems faced during the analyses along with any computer programs that have been written or revised during the quarter are discussed in the second section. In this and the previous section, technical terms and discussions are avoided where possible. The third section describes the data collections begun and completed during the quarter. Current personnel, personnel commitments made and consultation are noted in the fifth section. The sixth section covers project publications, research reports, and monographs in preparation and completed. The final section delineates changes in the DON budget, status of sub-contracts, and expenditures to date.

It should be noted that quarterly reports often describe analyses in process and present tentative results not yet in the final form. Therefore, many of the analyses and results presented cannot be keyed to any document elaborating on them. Whenever possible, such references will be made.

I. ANALYSES

1.1 Rank Theory, Field Theory, and Attribute Theory: Three Approaches to Interaction in the International System

Of the many explanations which have been invoked to account for behavior in the international system, rank theory and field theory are two of the most systematic approaches. They also claim greater relevance and applicability than most hypotheses about the international system. There are many contextual similarities: both grew out of dissatisfaction with the paucity of theory in international relations as of the early nineteen-sixties; both draw on traditions in previous writings in sociology and political science, while formulating several hypotheses much more precisely or with clearer relevance to international behavior; neither theory has been expounded at great length in textbook presentations but have to be sought out in scattered journal articles. Finally, both represent something more than a theory: they spearhead research traditions, even movements perhaps, that will be with us for some time.

For the above reasons, the two theories along with attribute theory¹ were put to a comparative test. In terms of the overall relationships, field theory was found to do a somewhat better job than rank theory and a similar job as attribute theory in predicting behavior. All in all, it would seem that there is not much evidence to discriminate the three theories in terms of the overall relationships between attributes and behavior, although rank theory appears to lag a little behind the others.

1.2 Policy Analysis for Action Recommendations

Political studies have had little contribution to make to the management of real political problems, largely because they have been devoted more to the end of increasing understanding than to the end of formulating concrete recommendations for action. The two are not the same. At some stages, the continued pursuit of deeper understanding may distract the analyst from the work of formulating concrete action recommendations. Carefully performed, explicit policy analyses designed to develop recommendations for action dealing with real political problems can be legitimate scholarly endeavors. Methodologies and guiding principles for the conduct of such studies can be formulated just as they have been for the conduct of empirical research. More action-oriented policy analyses need to be done, and more effort should be devoted to cultivating the methods for doing them. This paper analyzes the various methodologies for making policy analyses.

1.3 An Examination of Voting Patterns in the 23rd and 24th Sessions of the General Assembly

The primary purpose of this study is to relate a large number of variables, pertaining to the national attributes of the members of the United Nations, to their voting patterns in the 23rd (1968) and 24th (1969) sessions of the General Assembly. The study was guided by notions developed under the Social Field and Attribute Theories of international politics.

The study (1) ascertained scale values for United Nations members on a large number of heterogeneous variables (national attribute data), (2) correlated the obtained scale values with general assembly voting pattern data (23rd and 24th Sessions), (3) drew conclusions and generalizations from the observed relationships, and (4) discussed the relationship of the findings to previous research and to certain theories of international behavior.

¹Attribute theory has not been seriously proposed as a theory at all, but serves mainly a contrasting function.

The three most important predictors of General Assembly voting were found to be "Economic Development," "Democracy" and "U.S. Relations." Economically developed states were almost consistently "against the majority," when significant correlations emerged on the issues, while "Democracy" and "U.S. Relations" were "with" the majority on some issues and "opposed" on others.

The techniques of analysis included Spearman's Rho factor analysis, and canonical correlation.

1.4 The Evaluation of Policy Alternatives

The purpose of systematic evaluation procedures is to help policy analysts confronted with difficult decisions to form wise choices. Few useful guidelines have been offered for the evaluation of action alternatives, especially in the realm of foreign policy formation. Schemes based on statements of goals or objectives or on the use of broadly applicable criteria for choosing among alternatives can be misleading, and they are frequently found to be unworkable. Rather than searching for particular rules by which wise choices should be made, it is more useful to find ways in which difficult decision problems can be decomposed into smaller questions, each of which is easier to answer than the larger problem. A tabular, account-book format, described as the revised general ledger, provides a sound basis for systematically comparing and evaluating those features which significantly differentiate the action alternatives under examination. The scheme may be used as the core of an efficient approach to policy analysis described as the pair-wise evaluation strategy.

II. METHODOLOGY AND COMPUTER PROGRAMS

2.1 Dynamic Allocation in Fortran

"DYNA: Dynamic Storage Allocation in Fortran for the IBM/360 Operating System" has been published as Research Report No. 53. Copies are available from the DON Project.

2.2 Modular Factor Analysis

During the months that the Modular Factor Analysis package has been running, we have received considerable feedback as to some possible extensions and improvements. While each program (Module) is self-contained and hence allows for considerable flexibility, it is apparent that some information (e.g. number of variables, factors, observations, variable names, observations' names, etc.) could be passed via an internal link from module to module. The suggestion (from several users) is a good one and we are adapting the modules accordingly.

It is also clear that while the Modular package allows considerable interaction with one's data, some users still prefer the "black box" approach to the data analysis problem. To accomodate these users, we have

developed simplified procedures which allow easy use of modular although at a cost of decreasing the flexibility. These procedures will be implemented when release 20 of IBM's Operating System goes on the air.

2.3 Missing Data

Our continued investigation of the "Missing Data" problem indicates that a single estimate usually does not produce optimum results. While a least squares estimate may be the "best" estimate of individual cells, it produces a bias in the correlations. Hence we have partitioned the problem accordingly and are currently investigating estimation methods to produce estimates that are optimum in terms of their effect on the correlations.

2.4 A.P.L. and T.S.O.

The university has installed two new time-sharing systems. Both of these systems should be useful in many facets of our investigations. We are currently exploring both systems in order to develop an on-line capability.

A.P.L. is a language developed by K. E. Iverson and is capable of performing very complex operations easily.

T.S.O. is IBM Time Sharing Option and will allow us to submit jobs remotely, manage our data sets on-line, and develop some interactive programs.

III. DATA

3.1 Domestic Events

We are testing out the month to month dynamics of international conflict, in an attempt to relate domestic events to foreign conflict. In order to make comparisons, the Daily Event Data of the World Handbook of Political and Social Indicators II was obtained from the Inter-University Consortium for Political Research, Ann Arbor, Michigan.

3.2 Data Collected During This Quarter

Population 1965

Telephones/Population 1965

Agricultural Population/Population 1965

Energy Consumption/Population 1965

Illiterates/Population 10 years of age or older 1965

English Titles Translated/Foreign Titles Translated 1965

Religions 1965

Immigrants/Migrants 1965

Average Rainfall 1965

Membership of Largest Religion/Population 1965
Dwellings with Running Water/Dwellings 1965
Foreign College Students/College Students 1965
Foreign Conflict 1960 A & B Space
Age of Country 1960 and 1965

IV. PERSONNEL

4.1 Project Director

Professor R. J. Rummel, Director of DON, has completed the second draft of the comparison of status and field theories. He received invitations to participate in the West German Government round table on Peace Research in Mannheim, the International Political Science Association round table on Theory in International Relations, also at Mannheim, and the European Peace Research Conference in Vienna. He regretfully declined these invitations.

Beginning this quarter, he has begun to survey the major principle ideas and positions of social thought from classical times to the present in order to fit field theory into the history of social thought. There is a need for a better knowledge of history in treating field theory as a general and dynamic theory.

4.2 Assistant Director

Professor Warren Phillips spent time with a number of graduate students developing a theory of foreign policy decision-making in conflict situations. Several students have been working on related research projects studying Indonesian-Malay, India-Pakistan, and Sino-Soviet conflicts.

At the International Studies Association meetings in San Juan, Professor Phillips chaired a panel concerned with mathematical models and their use in theory building in International Relations. In addition, he chaired a meeting of the Interpolimetrics Society for Professor Rummel. At the meeting it was decided that the draft proposal for the constitution of the Society would be submitted to its members for ratification. Professor Phillips was also active in the Policy Relevance and Research Committees at San Juan.

4.3 Associate Researchers

Professor Kent prepared three DON research reports during the first quarter of 1971, No. 51 on "Policy Analysis for Action Recommendations," No. 55 on "The Evaluation of Policy Alternatives," and No. 56 on "Teaching Practical Policy Analysis." In addition, his recently published paper on "Foreign Policy Analysis: Middle East" was added to the DON Reprint Series.

Professor Kent presented the paper on "Policy Analysis for Action Recommendations at the meeting of the Consortium on Peace Research, Education and Development at North Manchester, Indiana, on February 12-14, 1971. Then, on February 15 in Seattle, he chaired a panel on "Attitudes

and World Politics" at the Western Regional Meeting of the Peace Research Society (International). As a member of the Western Regional section's Steering Committee, he helped to plan the next meeting, to be held in Vancouver in 1972. Then, on March 25-26, 1971, in San Francisco, Professor Kent attended the Western Regional Meeting of the International Studies Association, where he chaired a panel on "The Relationship of Quantitative Research to Policy Making" and presented a talk on "Problem Oriented International Studies." He participated as a member of this group's Steering Committee meetings as well.

Professor Vincent prepared a research report during the quarter entitled "An Examination of Voting Patterns in the 23rd and 24th Sessions of the General Assembly," DON Research Report No. 54.

Professor Vincent spent a busy quarter getting involved with current research at the DON Project.

V. DON ACTIVITIES

5.1 DON Staff Meetings

DON staff meetings are held for two hours once a week. Interested members of the University community are invited to attend, as well as the DON staff. These meetings serve to communicate the latest DON findings, ongoing subprojects and critiques of the research in progress. The meetings' format is one within which outside scholars doing relevant research can discuss their findings.

The following is a list of speakers and their topics of discussion during the last quarter: Kenneth Boulding (General Discussion); Steven Brams (recent work in International Relations); Charles Wall (Modular Package); Edward Schwerin (Games, Simulations, and "Shocking" Experiments --experiences?); Charles Wall (The Complete Modular Package); R. J. Rummel (Status, Field Theory and International Relations).

VI. PUBLICATIONS AND REPORTS

6.1 Publications in Press

Rummel, R. J. Dimensions of Nations

6.2 Publications

Rummel, R. J. "Dimensions of Conflict Behavior Within Nations, 1946-59." Macro-Quantitative Analysis (Chapter 2) Edited by John V. Gillespie and Betty A. Nesvold. Sage Publications, Inc., 1971.

Rummel, R. J. "Dimensions of Conflict Behavior Within and Between Nations." Macro-Quantitative Analysis (Chapter 3) Edited by John V. Gillespie and Betty A. Nesvold. Sage Publications, Inc., 1971.

6.3 Research Reports

Phillips, Warren R. "The Dynamics of Behavioral Conflict." October 1970. Research Report No. 49.

Kent, George. "Policy Analysis for Action Recommendations." January 1971. Research Report No. 51.

Vincent, Jack E. "An Examination of Voting Patterns in the 23rd and 24th Sessions of the General Assembly." March 1971. Research Report No. 54.

Kent, George. "The Evaluation of Policy Alternatives." March 1971. Research Report No. 55.

VII. BUDGET

7.1 Fiscal Status

7.1.1 Amount Funded

The total amount (09-01-67 to 03-31-71) is \$652,846, of which \$200,000 is funding for year -04 (09-01-70 to 08-31-71).

7.1.2 Estimated Expenditures and Commitments:

Total Expenditures to date (09-01-67 to 03-31-71)	\$522,930
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Total Estimated Expenditures (09-01-67 through 08-31-71)	\$652,846
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7.1.3 Estimated Funds Required: Approximately \$750,000. This takes into account the five-year research plan of the project, only four years of which is currently funded.

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